### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018613 Address: 333 Burma Road **Date Inspected:** 14-Dec-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Hua Jie. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

Trial assembly yard, 12AE-12BE, Bottom Panel T-rib holds back area.

SMAW welding of weld joint BP3001-001-065, BP3004-001-023; located at Trial assembly yard. Welder is identified as 050289; ZPMC Quality Control Inspector (QC) is identified as Liu Hua Jie. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM-1.

Trial assembly yard, 12AE-12BE, SP-E7.

SMAW welding of weld joint OBE12D-002; located at Trial assembly yard. Welders are identified as 040367, 047353, 052763; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2233T-ESAB. The attached photographs provide additional detail.

Trial assembly yard, 12AE-12BE, SP-E8.

SMAW welding of weld joint OBE12D-001; located at Trial assembly yard. Welder is identified as 040458; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2233T-ESAB.

Trial assembly yard, 12AE-12BE, SP-C5.

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SMAW welding of weld joint OBE12D-003; located at Trial assembly yard. Welders are identified as 040458, 052763, 040367; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2233T-ESAB.

Trial assembly yard, 12AE-12BE, SP-C4.

SMAW welding of weld joint CA6502-008; located at Trial assembly yard. Welder is identified as 047353; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2233T-ESAB.

Trial assembly yard, Connection Splice plates.

SMAW Repair welding (Ultrasonic Inspection repair per ZPMC UT-report # B787-UT-16496) of weld joint USPL1-652-001 (WRR # B-WR19038); located at Trial assembly yard. Welder is identified as 046709; ZPMC Quality Control Inspector (QC) is identified as Zhu Zhong Hai. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-SMAW-1G(1F)-FCM-REPAIR-1.

Trial assembly yard, 12AW-12BW, Side Panel I-rib Splice.

SMAW welding of weld joint SP3049-001-060; located at Trial assembly yard. Welder is identified as 041713; ZPMC Quality Control Inspector (QC) is identified as Shi Lie. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2214-B-U2-FCM-1. The attached photographs provide additional detail.

#### Bay 15, Connection Plate.

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) connection splice plates, this QA inspector discovered ZPMC performing repair welding on connection splice plates in Bay 15. Connection plates were identified as USPL1-658 & USPL1-653. ZPMC personnel was observed welding Flux Cored Arc welding (FCAW) with "SUPERCORED-71H" Filler wire. NO ZPMC Quality Control (QC) personnel were present at the repair location. This QA inspector submitted Incident report (IR) for this issue on same date. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 1500.042.2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Juvekar, Amit	Quality Assurance Inspector
Reviewed By:	Dsouza, Christopher	QA Reviewer